#### **REMARKS**

Claims 1 to 64 were rejected under 35 U.S.C. §101 as not falling within one of the four statutory categories of invention. Claims 33 to 37, 45 to 51, 54 to 58, 60 and 61 were rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,388,129 to Hartley (hereinafter "Hartley"). Claims 38 to 44, 52 to 53, 59 and 62 to 64 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claims and any intervening claims.

Claims 33, 38, 39, 41 to 43, 45, 52, 58, 61, 63 and 64 are hereby amended. Claim 33, 39, 41, 61, 63 and 64 have been amended to more clearly and particularly define the invention. Claims 42 to 43, 52 and 58 have been amended to correct grammatical errors. Claim 64 has been amended to correct the antecedent basis. Claims 38 and 45 have been amended to be in independent form.

Reconsideration of the application based on the following remarks is respectfully requested.

# 35 U.S.C. §101 Rejections

Claims 1 to 64 were rejected under 35 U.S.C. §101 as not falling within one of the four statutory categories of invention.

Claims 1 to 32 were previously canceled. Claim 33 has been amended. The claims as amended are clearly tied to a particular machine or apparatus, namely the nuclear reactor. See MPEP 706.03(a).

Withdrawal of the rejection of claims 33 to 64 under 35 U.S.C. §101 is respectfully requested.

### 35 U.S.C. §102 Rejections

Claims 33 to 37, 45 to 51, 54 to 58, 60 and 61 were rejected under 35 U.S.C. §102(b) as being anticipated by Hartley.

Hartley discloses "an apparatus and a method for radiographic inspection of welds, which welds may be seal welds of the kind typically found on nuclear power reactor control rod drive mechanisms (CRDMs)." (Col. 3, line 66 to Col. 4, line 2). "The invention in its broad form is also a method of radiographic inspection of the weld, the method comprising steps of surrounding one of the members with the track, mounting a radiation source on the track so that the beam of radiation emitted by the radiation source passes tangentially through the weld, and mounting a radiation shield on the track so that the beam of radiation is shielded." (Col. 4, lines 30 to 37).

Claim 33 has been amended to recite "[A] method for non-destructive testing of an element-for of a nuclear reactor, comprising:

acquiring a radiographic digital image of at least one area in the element of the nuclear reactor;

creating a reference image through digital processing of the radiographic image obtained; and

comparing the radiographic digital image obtained, one of processed and unprocessed, with the reference image to detect a presence of defects."

Hartley fails to teach or disclose "acquiring a radiographic digital image of at least one area in the element of the nuclear reactor," "creating a reference image through digital processing," or "comparing the radiographic digital image obtained," as required by claim 33. Hartley does not teach any digital imaging or processing nor does the Office Action disclose where such limitations can be found in Hartley. Hartley instead teaches radiographic film. See Hartley at col. 10, lines 35 to 38. Since Hartley does not show the requirements of claim 33, including the radiographic digital image and processing, it does not render claim 33 unpatentable as anticipated.

Withdrawal of the rejection of independent claim 33 and claims 34 to 37, 45 to 51, 54 to 58, 60 and 61, directly or indirectly dependent on claim 33, under 35 U.S.C. §102(b) is respectfully requested.

# Allowable Claims

Claims 38 to 44, 52 to 53, 59 and 62 to 64 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitation of the base claims and any intervening claims.

Claim 38 has been re-written in independent form. Furthermore, in light of the discussion above regarding independent claim 33, withdrawal of the objection of claims 38 to 44, 52 to 53, 59, and 62 to 64 is respectfully requested.

# **CONCLUSION**

It is respectfully submitted that the application is in condition for allowance and applicants respectfully request such action.

If any additional fees are deemed to be due at this time, the Assistant Commissioner is authorized to charge payment of the same to Deposit Account No. 50-0552.

By:

Respectfully submitted,

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